an exemplary embodiment of the present invention.

As shown in FIG. 3, user data (UD) is received by a source data encoder 42. The user data UD has a data rate of over several tens of Kbps, such as character, image and moving picture data, as distinguished from voice data having a much lower data rate on the order of several Kbps. The source data encoder 42 encodes the received user data UD by the fixed length frame whose length is determined in accordance with the service type and then provides the encoded fixed length frame data to an input of a bit counter 50. For example, the source data encoder 42 typically encodes voice data with a 10ms frame format, character data with a 20ms frame format, image data with an 80ms frame format, and moving picture data with a 40ms frame format, and provides the respective encoded data into the bit counter 50. The processing size can be different with respect to data rate or frame length. The frame length unit can be fixed 10 ms or fixed 20 ms. A central processing unit (CPU) 46 transfers information about the QoS, i.e., service type of the user data to be transmitted (e.g., voice, character, image or moving picture) and the data rate to a message information receiver 108 of FIG. 6 via a message information transmitter 44. The channel transmission device of FIG. 3 can be equally applied to both the base station and the mobile station.--

Please accept replacement for second full paragraph on page 13, as follows:

--However, in the service having a data rate of 2048Kbps/10ms, if the channel encoder divides (i.e., segments) a frame input to the turbo encoder into four sub frames (i.e., 10ms/4) and encodes the sub frames, and a turbo decoder in the channel decoder then decodes the sub frames and recomposes the decoded sub frames into the original frame, the turbo decoder requires a memory capacity which is proportional to 5120 bits by the number of soft decision bits, thereby causing a reduction in the required memory capacity.--

Please accept replacement paragraph for the first full paragraph on page 21, as follows:

--The CPU 112 analyzes the message information provided from the message information receiver 108 and reads frame segment/assemble information from a frame segment/assemble information storage 110 according to the analysis. Also, the CPU 112 analyzes the interleaving information included in the message information and provides an

interleaving mode signal and a parameter value to an interleaver and a deinterleaver in a turbo decoder 116 according to the analysis, thereby performing turbo interleaving. In addition, when the receiving data is sub frame (actually the received data is a original frame size but the frame is encoded by sub frame unit), the CPU 112 outputs an N-bit frame segment control signal before turbo decoding and a frame recompose control signal after turbo decoding according to the read message information. Here, the information stored in the frame segment/assemble information storage 110 is similar to that stored in the frame segment/assemble information storage 48 of FIG. 3.--

Please accept replacement paragraphs for the second and third paragraphs on page 22 and continuing onto the top of page 23, as follows:

--Accordingly, under the control of the CPU 112, the N-FB1 122 and the N-FB2 124 in the frame buffer 114 alternately receive and store the data output by the N-bit unit from the bit counter 106, and the stored data is decoded by the turbo decoder 116. When user data decoded by sub frame unit, the decoded data output from the turbo decoder 116 is recomposed into the frames of the original length by a frame recomposer 118 which is controlled by the CPU 112, and then output as the user data through a source data decoder 120.

In summary, the turbo decoder 116, broadly described, receives a super frame consisting of multiple frames or multiple sub frames segmented from a frame, and turbo decodes the received frames. The frame recomposer 118, under the control of the CPU 112, recomposes, when user data decoded by sub frame unit the output of the turbo decoder 116 into the original frames in response to information about the frame size and number of the frames constituting the sub frames or information about the number of the sub frames segmented from the input frame and the size of the sub frames. The frame recomposer 118, under control of the CPU 112 segments when user data decoded by super frame unit, the output of the turbo decoder 116 into the original frames in response to information about the frame size and number of the frames constituting super frame.--

Please accept replacement section entitled "Abstract of the Disclosure", as follows: